

Figure 1
Map of Human IL-17 Like cDNA (SEQ ID NO:1) and
Amino Acid (SEQ ID NO:2) Sequences

1	CTCAAGTCACTCCCTAAAGACAGTGGAAATAAATTGAATAACAAACAGGCTTGCT	8
61	GAAATATAATCAGGACTCTAACCTGTCTCCAGTCAGCTGCTTCCACGAGGCTGTGAG	28
121	TCAGTGCCCACTTGTGACTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTG	48
1	M Y Q V V A F L	68
181	TGGCAATGGTCAATGGGAACCCACACCTACAGCCACTGGCCCCAGCTGTGCCCCAGCAAAG	88
9	A M V M G T H T Y S H W P S C C P S K G	108
241	GGCAGGACACCTCTGAGGAGCTGCTGAGGTGGAGCACTGTGCTGTGCTTCCCTTAGAGC	128
29	Q D T S E E L L R W S T V P V P L E P	148
301	CTGCTAGGCCCAACCGCCACCCAGAGTCTGTAGGGCCAGTGAAGATGGACCCCTCAACA	
49	A R P N R H P E S C R A S E D G P L N S	
361	GCAGGGCCATCTCCCCCTGGAGATATGAGTTGGACAGAGACTTGAACCGGCTCCCCCAGG	
69	R A I S P W R Y E L D R D L N R L P Q D	
421	ACCTGTACCACGCCCGTTGCCCTGTGCCCGCACTGCGTCAGCTACAGACAGGCTCCCA	
89	L Y H A R C L C P H C V S L Q T G S H M	
481	TGGACCCCGGGCAACTCGGAGCTGCTTACCACAAACCAGACTGTCTTCTACCGGCGC	
109	D P R G N S E L L Y H N Q T V F Y R R P	
541	CATGCCATGGCGAGAAGGCCACCCACAAGGGCTACTGCTGGAGCGCAGGCTGTACCGTG	
129	C H G E K G T H K G Y C L E R R L Y R V	
601	TTTCCTTAGCTTGTGTGTGTGCGGGCCCCGTGTGATGGGCTAG 643	
149	S L A C V C V R P R V M G * 162	

Figure 2A
(Map of Mouse IL-17 Like cDNA (SEQ ID NO:3) and Amino Acid
(SEQ ID NO:4) Sequences with Predicted Signal Peptide

1	ATGTACCAGGCTGTTGCATTCTTGCAATGATCGTGGAAACCCACACCGTCAGCTTG	19
58	M Y Q A V A F L A M I V G T H T V S L	
11	CGGATCCAGGAGGCTGCAGTCACTTGCCCAGCTGTGCCCCAGCAAGAGCAAGAACCC	39
118	R I Q E G C S H L P S C C P S K E Q E P	
31	CCGAGGAGTGGCTGAAGTGGAGCTCTGCATCTGTGTCCCCCCCAGAGCCTCTGAGCCAC	59
178	P E E W L K W S S A S V S P P E P L S H	
51	ACCCACCAGCAGAATCCTGCAGGGCCAGCAAGGATGGCCCCCTCAACAGCAGGGCCATC	79
238	T H H A E S C R A S K D G P L N S R A I	
71	TCTCCTTGAGCTATGAGTTGGACAGGGACTTGAATCGGGTCCCCCAGGACCTGTACCAC	99
298	S P W S Y E L D R D L N R V P Q D L Y H	
91	GCTCGATGCCCTGTGCCCCACACTGCGTCAGCCTACAGACAGGCTCCACATGGACCCGCTG	119
358	A R C L C P H C V S L Q T G S H M D P L	
111	GGCAACTCCGTCCCACCTTTACCACAACCCAGACGGTCTTTCTACCGGGCCATGCCATGGC	139
418	G N S V P L Y H N Q T V F Y R R P C H G	
131	GAGGAAGGTACCCATCGCCGCTACTGTGGAGCGCAGGCTCTACCGAGTCTCCTTGGCT	159
478	E E G T H R R Y C L E R R L Y R V S L A	
160	TGTGTGTGTGCGGCCCCGGTCAATGGCTTAGTCATGCTCACCACCTGCCTGAGGCTGA	170
538	C V C V R P R V M A *	
598	TGCCCCGTTGGAGAGAGGGCCAGGTGTACAATCACCTTGCCAATGCGGGCCGGTTCAA	
658	GCCCTCCAAAGCCCTACCTGAAGCAGCAGGCTCCCGGACAAAGATGGAGACTTGGGAG	
	AAACTCTGACTTTTGCACTTTTGGGAAGCACTTTTGGGAAGGAGCAGGTTCCTCGCTTGTGC	

1496

Corresponding Amino Acid Sequence (SEQ ID NO:10)
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30

Figure 2C

[illegible]

Pile-Up of Human IL-17 Like Amino Acid Sequence, hIL-17L (SEQ ID NO:2), with a Known Human IL-17 Family Member Amino Acid Sequence, hIL-17

(SEQ ID NO: 5)

Smith-Waterman score: 155; 25.0% identity in 160 AA overlap

hIL-17L	10	20	30	40	50	60
	XNQDSXPAPVSL	PRGLSVSAPLV	TECAVPSMYQV	VAFLAMVMG	THTYSHWP	SCCPKSGQ
			: :::: :	:	:	:
hIL-17			MTPGKTSLV	SLLLLSLEA	IVKAGITIP	RNPGCPNSEDK
			10	20	30	
hIL-17L	70	80	90	100	110	120
	DTSEELLRWST	VPVPPLEPAR	PNRHPESCR	ASEDGPLNS	RAISPWRYEL	DRDLNRLPQDL
	: : : :	:	:	:	:	:
hIL-17	NFPRTVMVNL	NI-----HNR	NTNTNPK--	SSD---Y	YNRSTSPW	NLHRNEDPER
	40	50	60	70	80	

Figure 3B

hIL-17L	130	140	150	160	170	180
	YHARCLCPHCVSLQ	TGSHMDPLGNSV	PLYHNQTVFYRR	PCHEEGTHRRYCL	ERRLYRVS	
	:: :	::	:::	: ::	: :	: :
hIL-17	WEAKCRHLGCIN--	ADGNVDYHMNSV	PIQQEILVLRRE	PPHCPNS----	FRLEKIL--VS	
	90	100	110	120	130	140
hIL-17L	190					
	LACVCVRPRVMA					
	:: :					
hIL-17	VGCTCVTPIVHVA					
	150					

Figure 4

Pile-Up of Human IL-17 like Amino Acid Sequence, hIL-17L, (SEQ ID NO:2)
with a Known Human IL-20 Amino Acid Sequence, hIL-20 (SEQ ID NO:6)

SCORES Init1: 124 Initn: 124 Opt: 175
Smith-Waterman score: 175; 36.7% identity in 90 aa overlap

	70	80	90	100	110	120	
hIL-17L	RWSTVPVPFLEPARPNRHPESCRASEDGPLNSRAISPWRYELDRDLNRLPQDLYHARCLC						
hIL-20	RNIEEMVAQLRNSSSELAQRKCEVNLQLWMSNKRSLSPWGYSINHDPSPRIPVDLPEARCLC						
	70	80	90	100	110	120	
	130	140	150	160	170	180	
hIL-17L	PHCVSLQTGSHMDPLGNSVPLYNQTVFYRRPCHGEEGTHRRYCLERRLYRVSLA-CVCV						
hIL-20	LGCVNPFTMQE-DRSMVSVPVF-SQVPVRRRLCPPPPRTGP--CRQRAVMTIVAGCTCI						
	130	140	150	160	170		
hIL-17L	RPRVMA						
hIL-20	F						

Figure 5
Pile-Up of Human IL-17 Like Amino Acid Sequence, hIL-17L, (SEQ ID NO:2)
with a Known Human IL-17 Amino Acid Sequence, hIL-17b (SEQ ID NO:7)
Family Member

SCORES	Init1: 124	Initn: 124	Opt: 178			
Smith-Waterman score:	178;	35.6% identity in 90 aa overlap				
hIL-17L	70	80	90	100	110	120
	RWSTVPVP	PLEPARPNRHP	ESCRASEDGPLNSRAIS	PKYELDRDLNRL	PQDLYHARCLC	
hIL-17b	70	80	90	100	110	120
	RNIEEMVAQLRNSSELAQRKCEVN	LQLWMSNKRSLSPWGYSIN	HDPSRIPVDLPEARCLC			
hIL-17L	130	140	150	160	170	180
	PHCVSLQTGSHMDPLGNSVPLYHNQ	TVFYRRPCHGEEGTHRRYCLERRLYR	-VSLACVCV			
hIL-17b	130	140	150	160	170	
	LGCVPFTMQE-DRSMVSPVF-SQVPVRRRLCP	PPPTGP--CRQRAV	METIAVGCTCI			
hIL-17L	190	RPRVMA				
hIL-17b	F	180				

Figure 6A
Pile-Up of Human IL-17 Like Amino Acid Sequence, hIL-17L, (SEQ ID NO:2)
with Amino Acid Sequence of a Known Human IL-17 Family Member,
hIL-17c (SEQ ID NO:8)

SCORES Initl: 149 Initn: 194 Opt: 236

Smith-Waterman score: 243; 34.5% identity in 171 aa overlap

hIL-17L	20	30	40	50	60	69
	GLSVSAPLVTECAVPSMYQVVAFLAMVMGTHYSHW-PSCCPSK----GQDTSELLR--					
	: : : : :					
hIL-17c	MTLLPGLLFLTLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGA					
	10	20	30	40	50	
hIL-17L	70	80	90	100	110	
	-WS-TVVPV---PLEPARP-NRH--PES---C---RASE--DGPLNSRAISPWRYELDRD					
	: : : : : : :					
hIL-17c	KWQALPVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTD					
	60	70	80	90	100	110

120 130 140 150 160 170

Figure 6B

hIL-17L	120	130	140	150	160	169
	LNRLPQDLYHARCLCPHCVSLQTGSHMDPLGNSVPLYHNQTVFYRRPCHGEEG----	THR				
hIL-17c	:	:	:	:	:	:
	EDRYPQKLAFAECLCRGCIDARTGRETAAAL-NSVRLLQSLLVLR	RPC-SRDGSGGLPTPG				
	120	130	140	150	160	170
hIL-17L	170	180	190			
	RYCLERRLYRVSLACVCRPRVMA					
hIL-17c	:	:	:	:	:	:
	AFAFHTEFIHVPVGCTCVLPRSV					
	180	190				

Figure 7

Northern Blot Expression Analysis of TH00-018
Necropsied Transgenic Founders

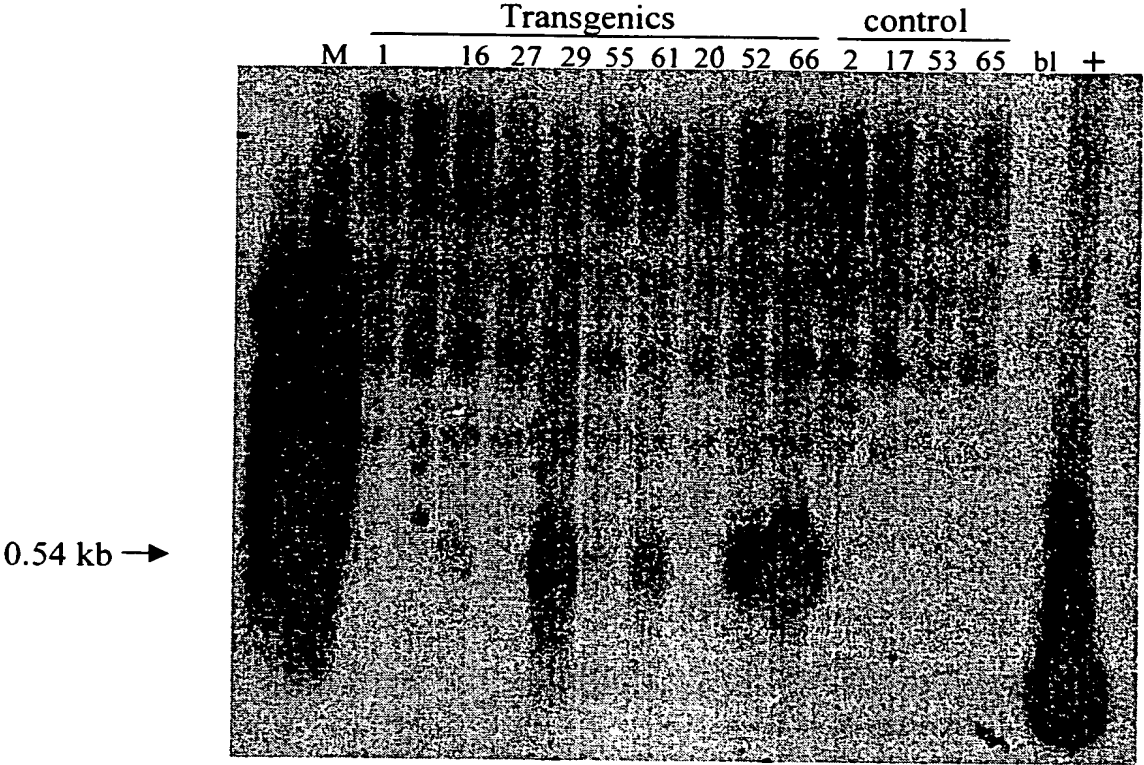


Figure 8

Northern Blot Expression Analysis of TH00-018
Hepatectomized Transgenic Founders

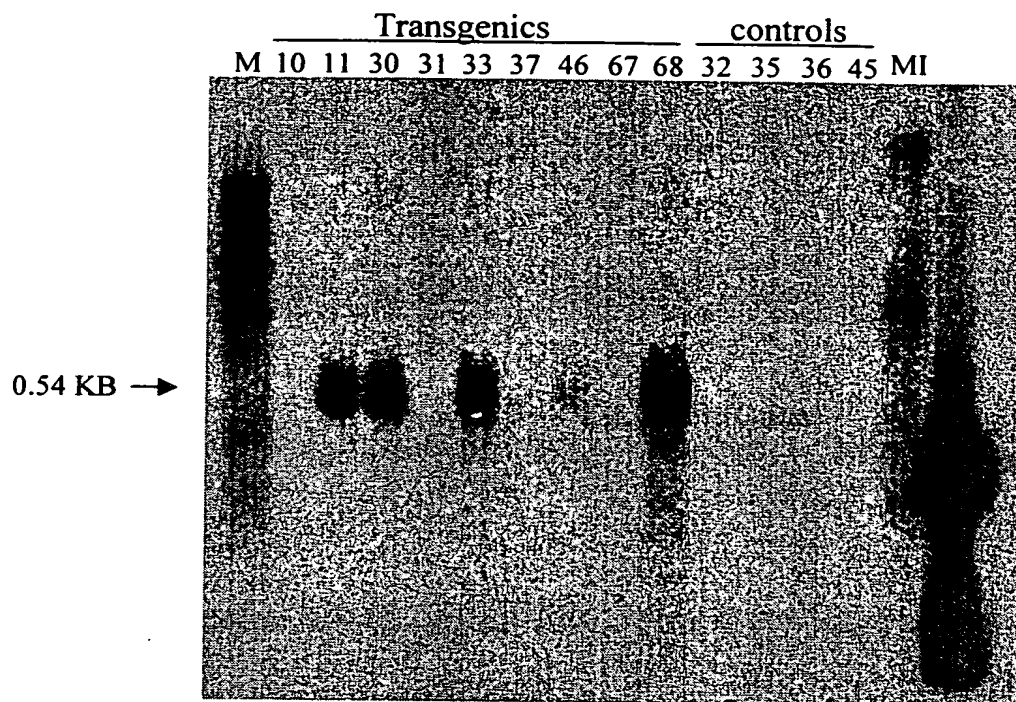
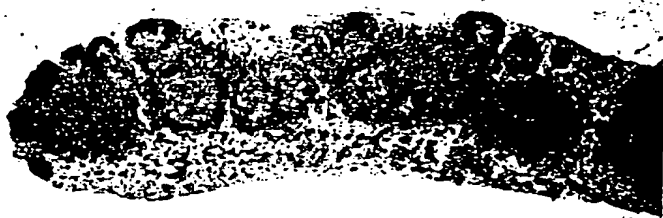


Figure 9

Non-Transgenics

IL-17E Transgenics

A

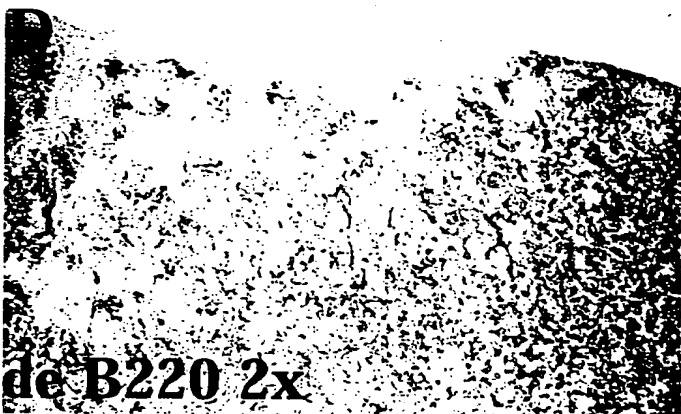


B



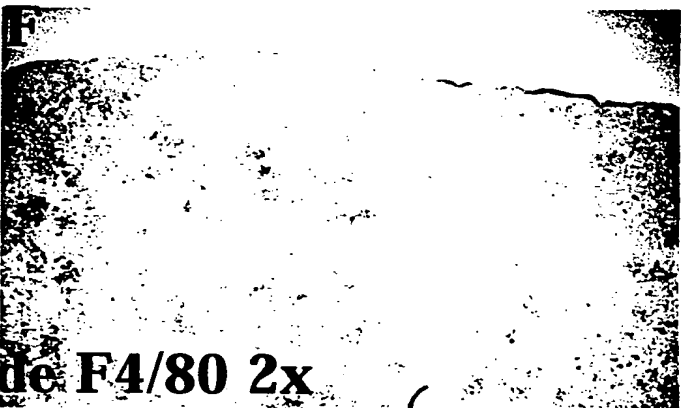
Lymph Node H&E 2x

C

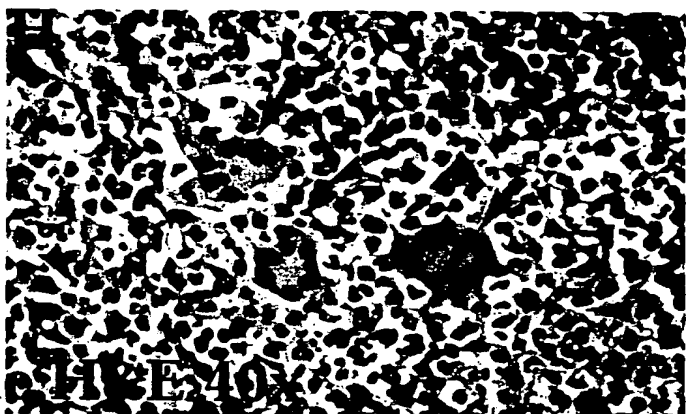


Lymph Node B220 2x

E



Lymph Node F4/80 2x



Lymph Node H&E 40x

Figure 10

Non-Transgenics

IL-17E Transgenics

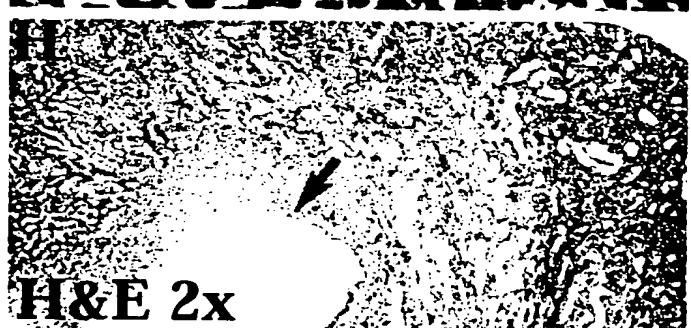
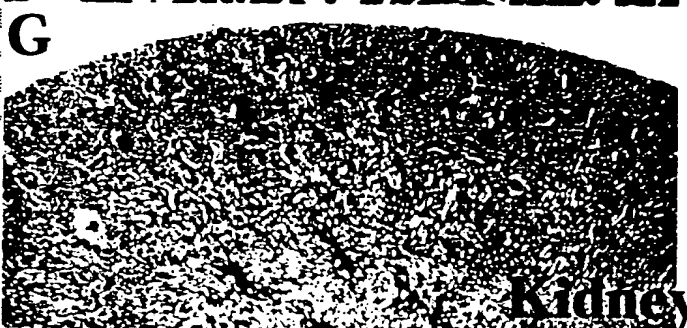
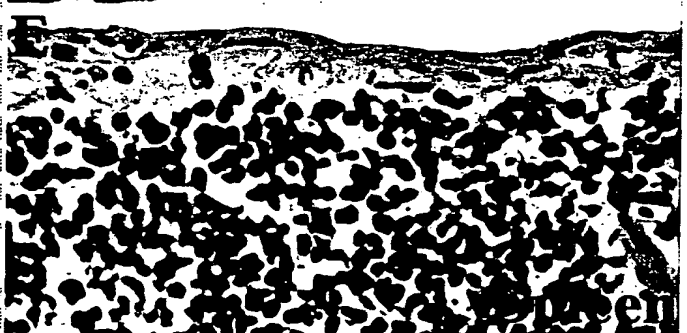
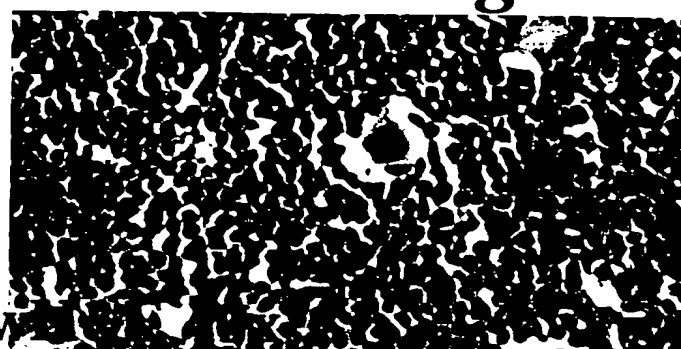
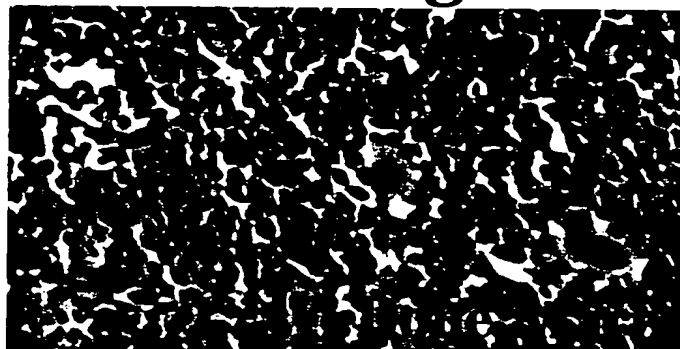


Figure 11

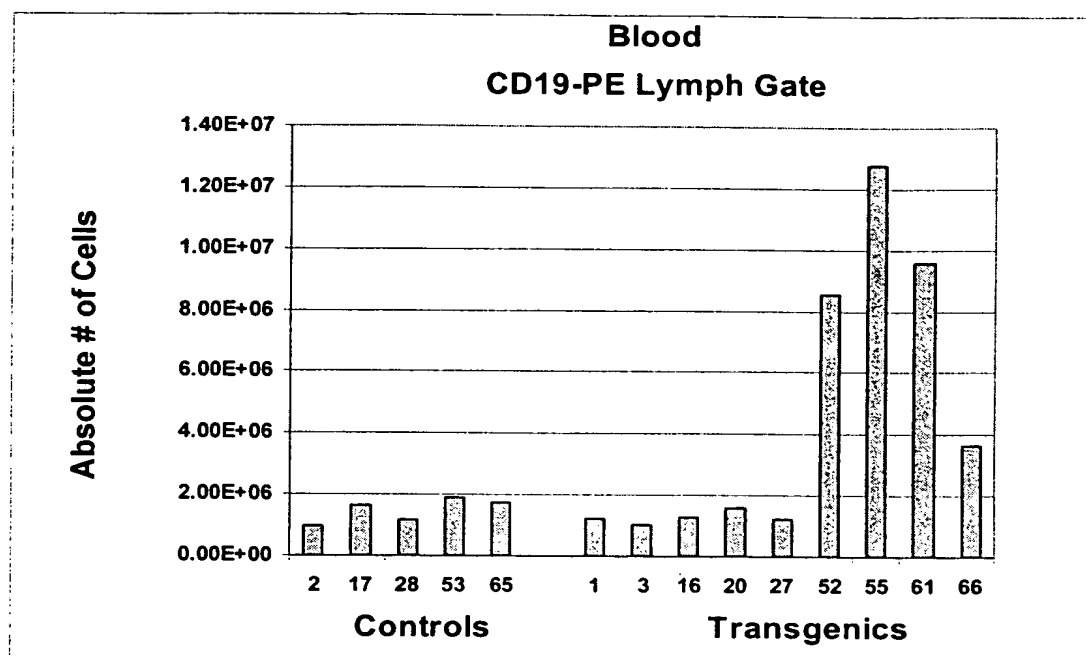


Figure 12

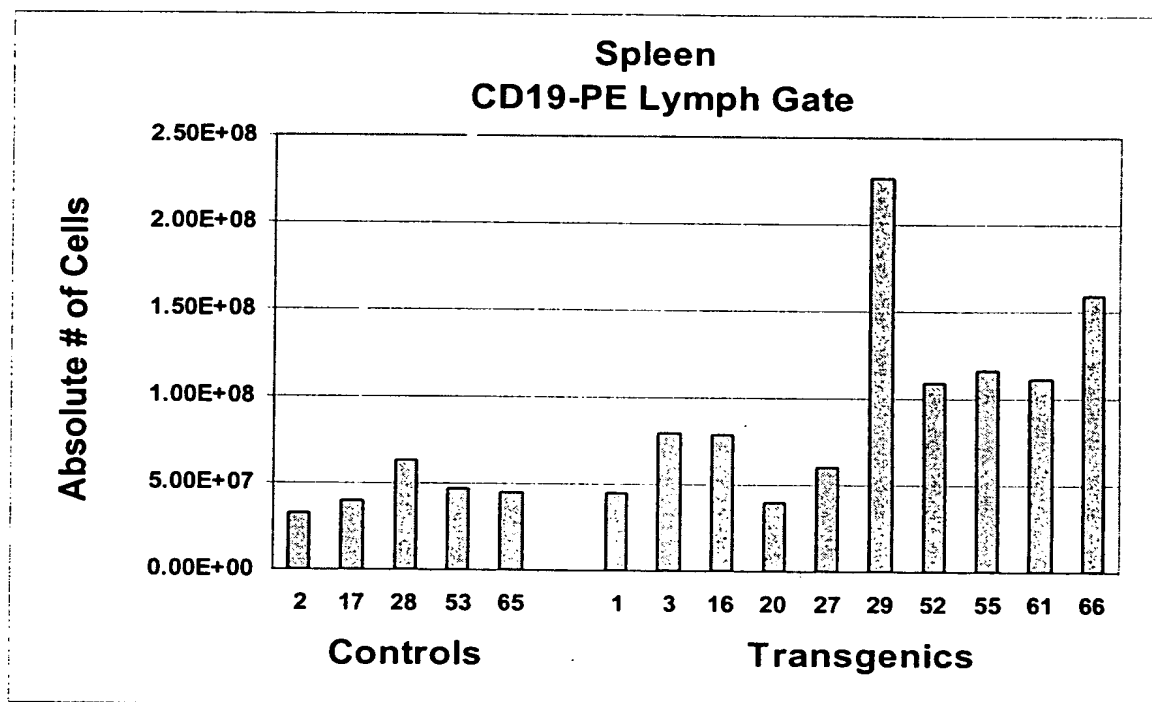


Figure 13

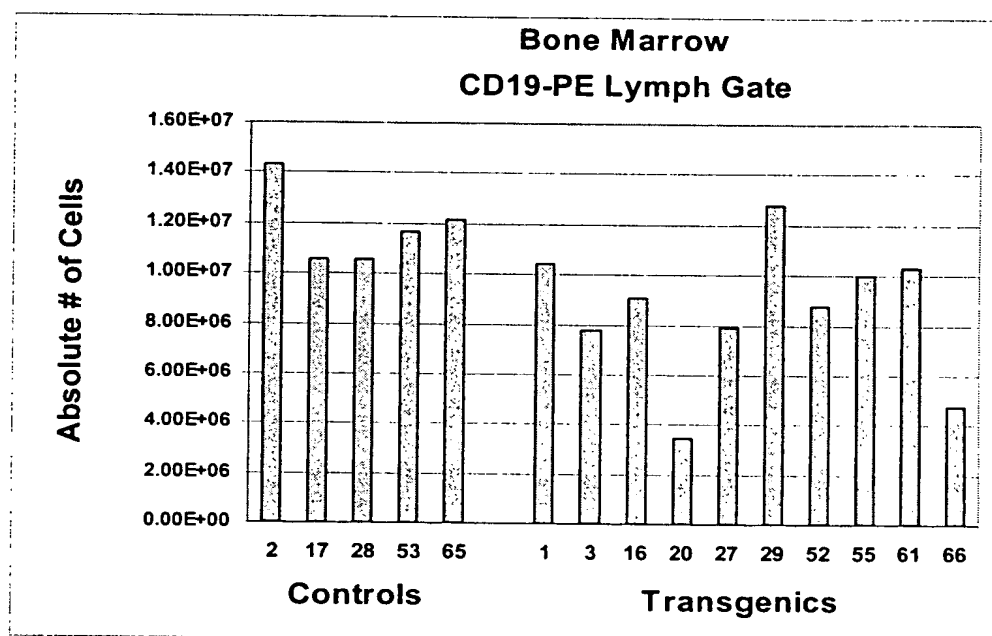


Figure 14

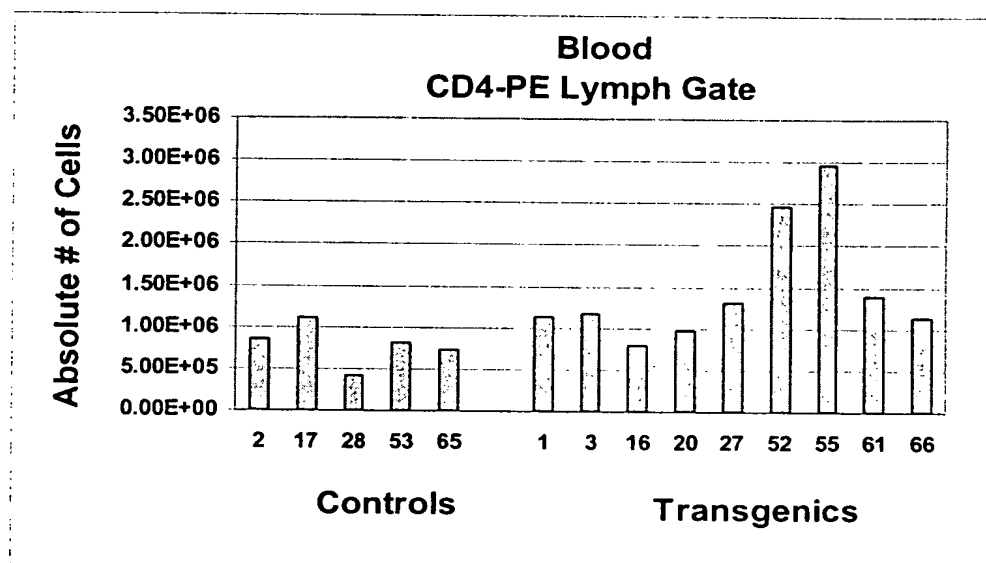


Figure 15

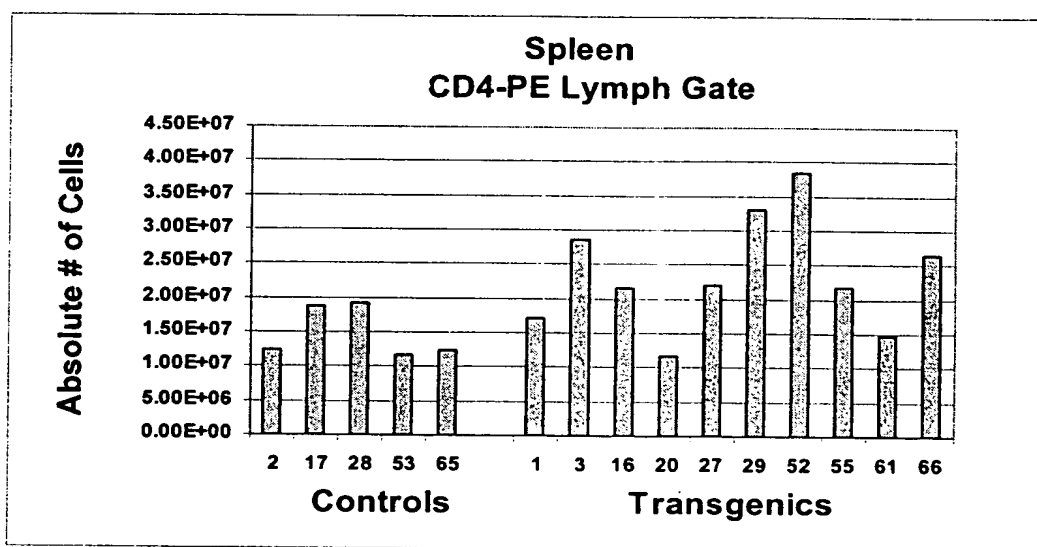


Figure 16

CD45R+ CELLS EXPRESSING IL17Br IN TRANSGENIC BONE MARROW

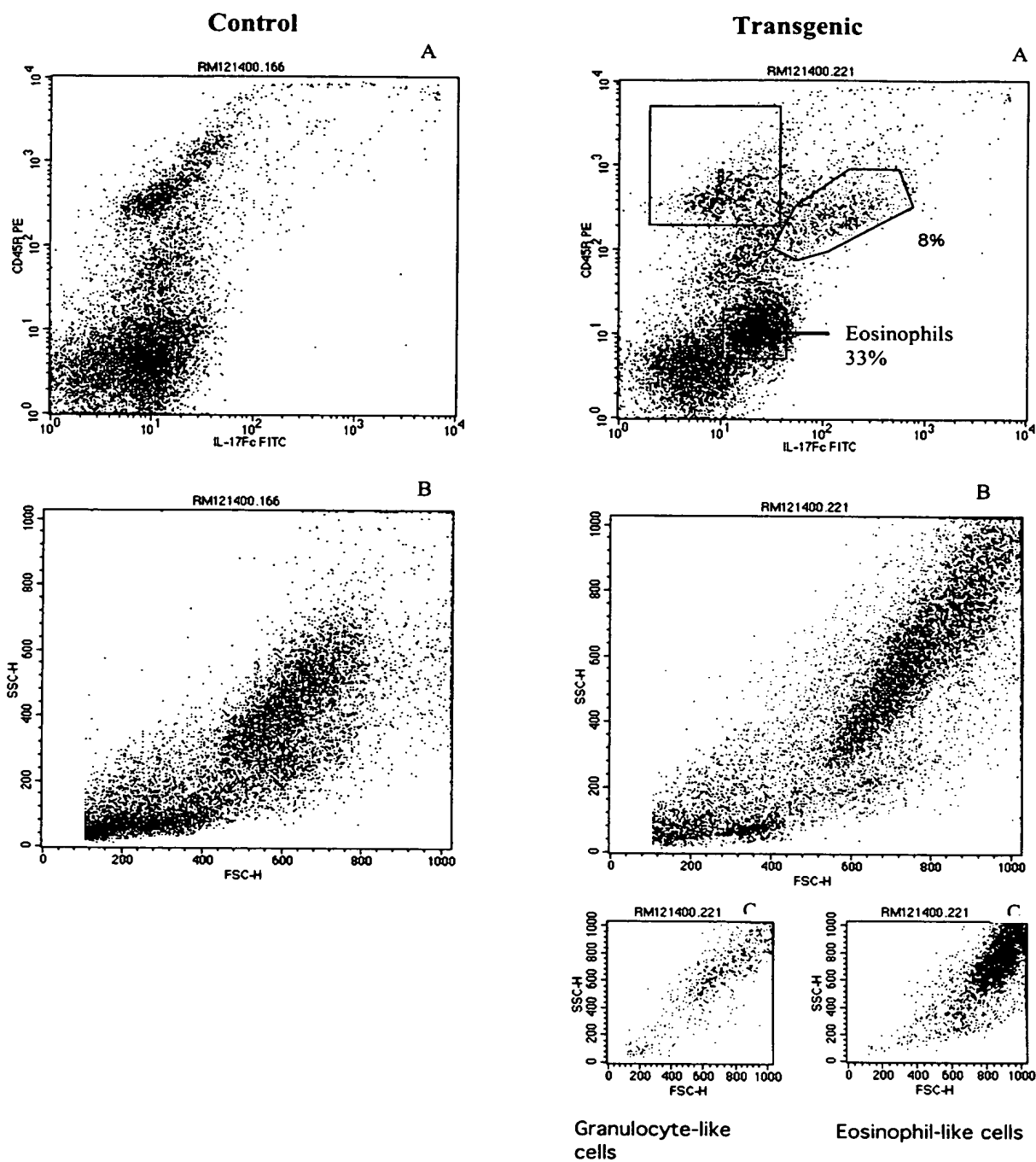


Figure 17

CD4+ CELLS EXPRESSING IL17Br IN TRANSGENIC BONE MARROW

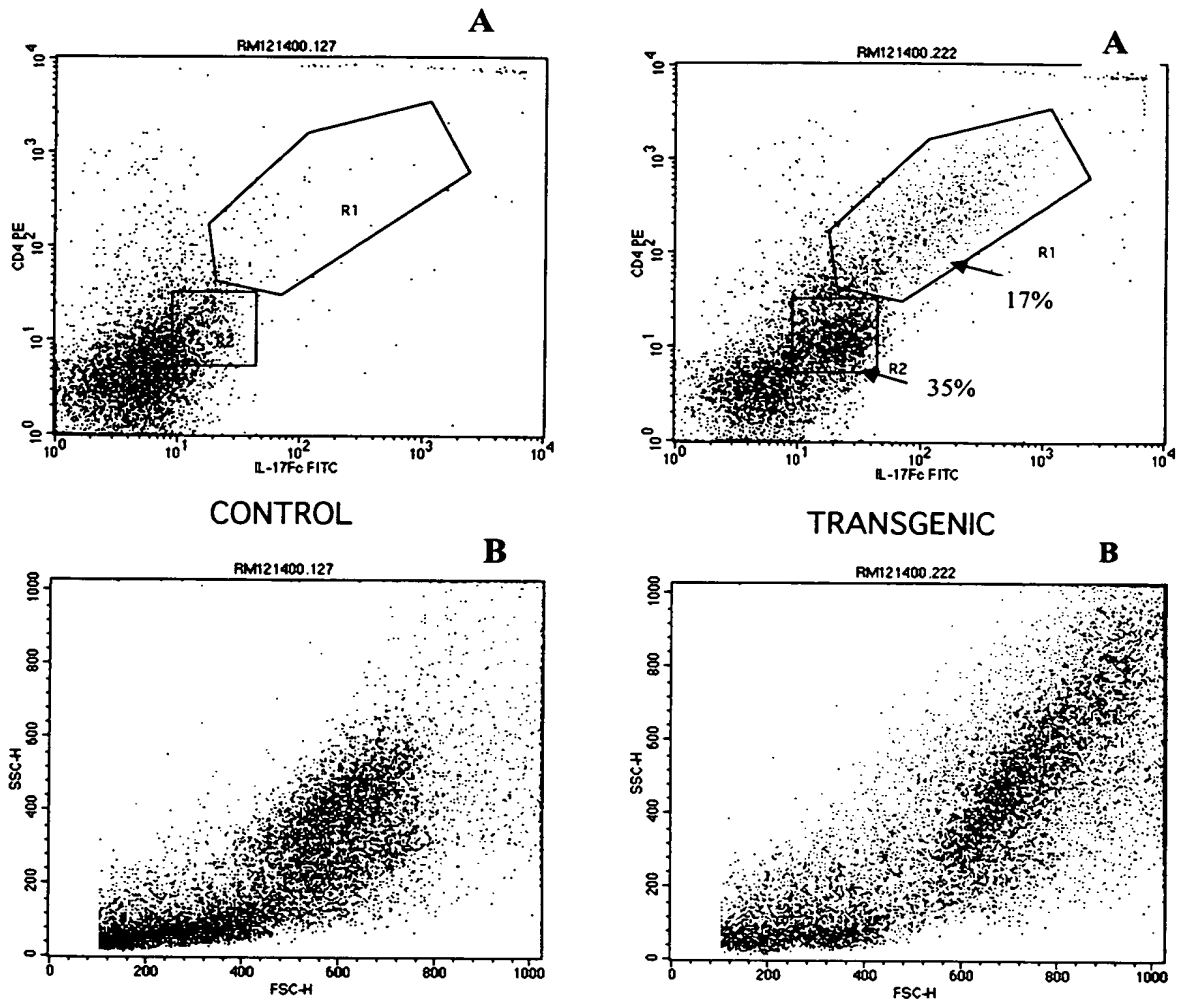


Figure 18

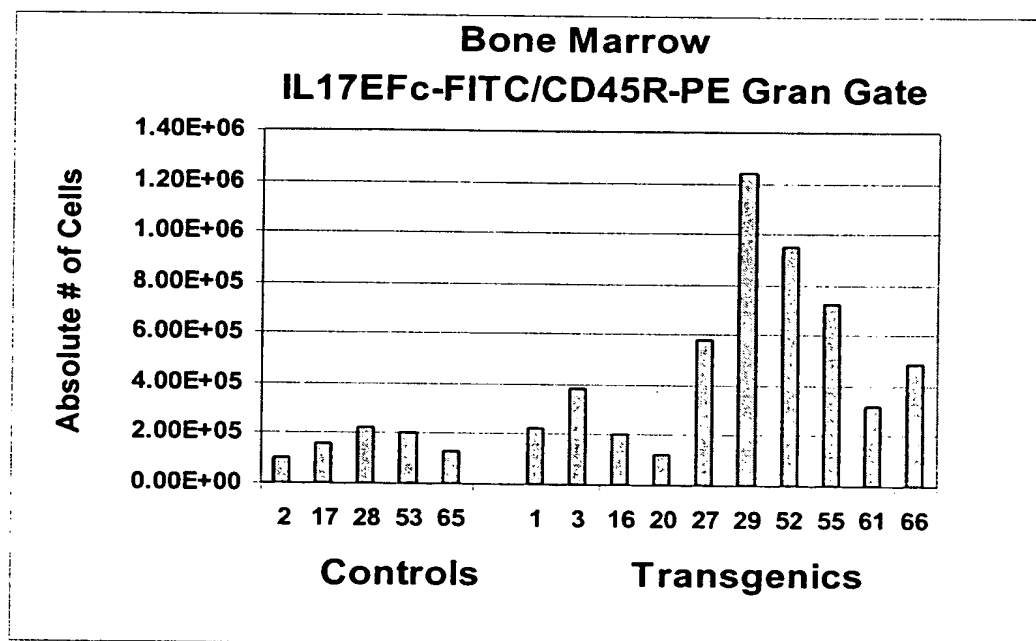


Figure 19

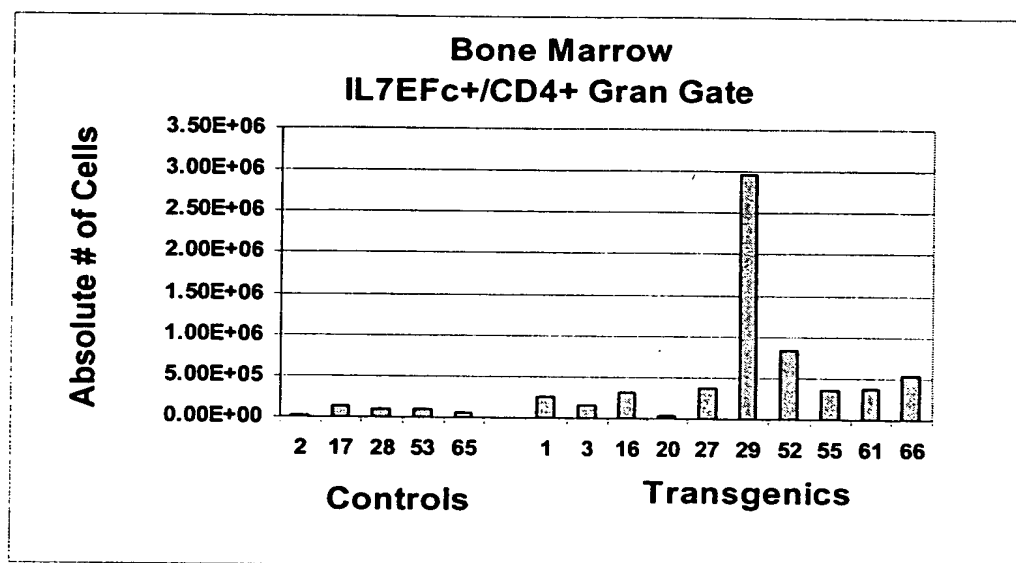
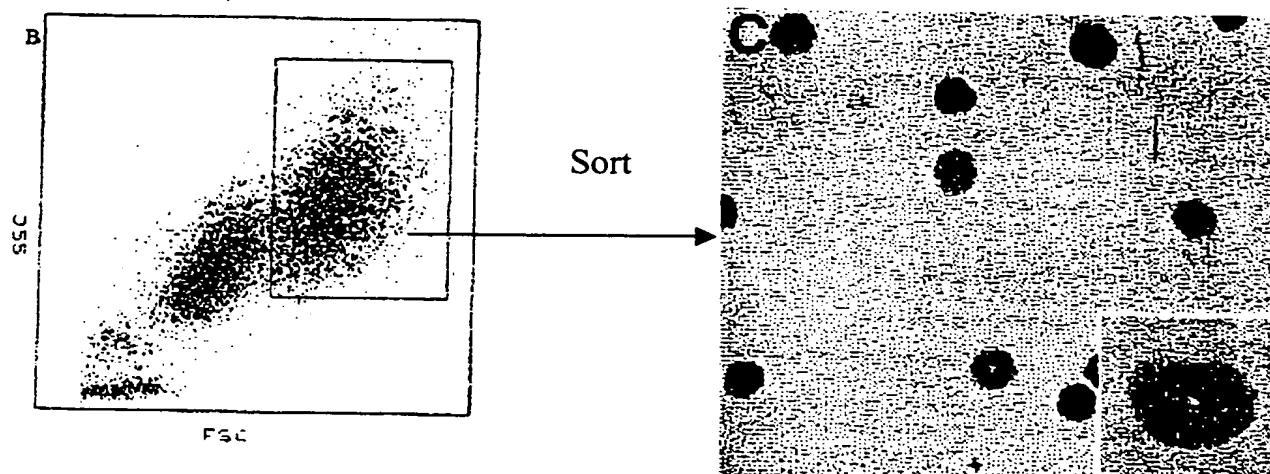


Figure 20



10037694-12404
10037694-12404

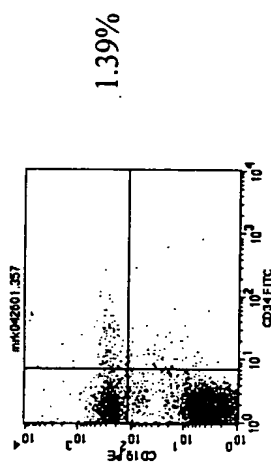
Figure 21A

Non-transgenic Control

CD5+ on CD19+ Lymphocytes in Lymph Node



CD34+ on CD19+ Lymphocytes in Lymph Node



Transgenic

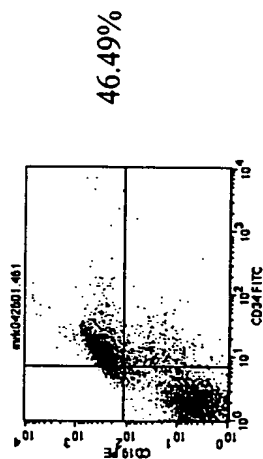
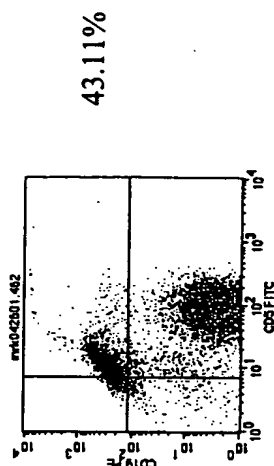


Figure 21B

CD4 Expression on Eosinophils in Bone Marrow

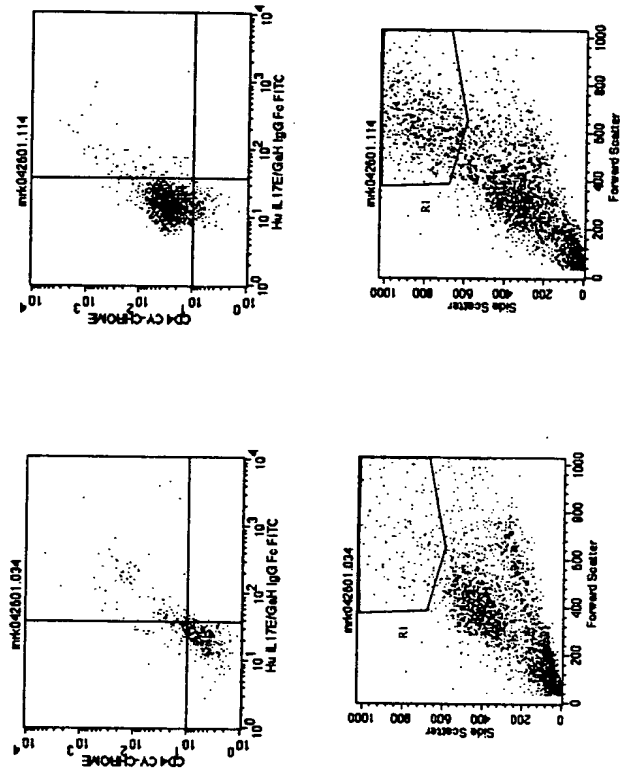


Figure 22

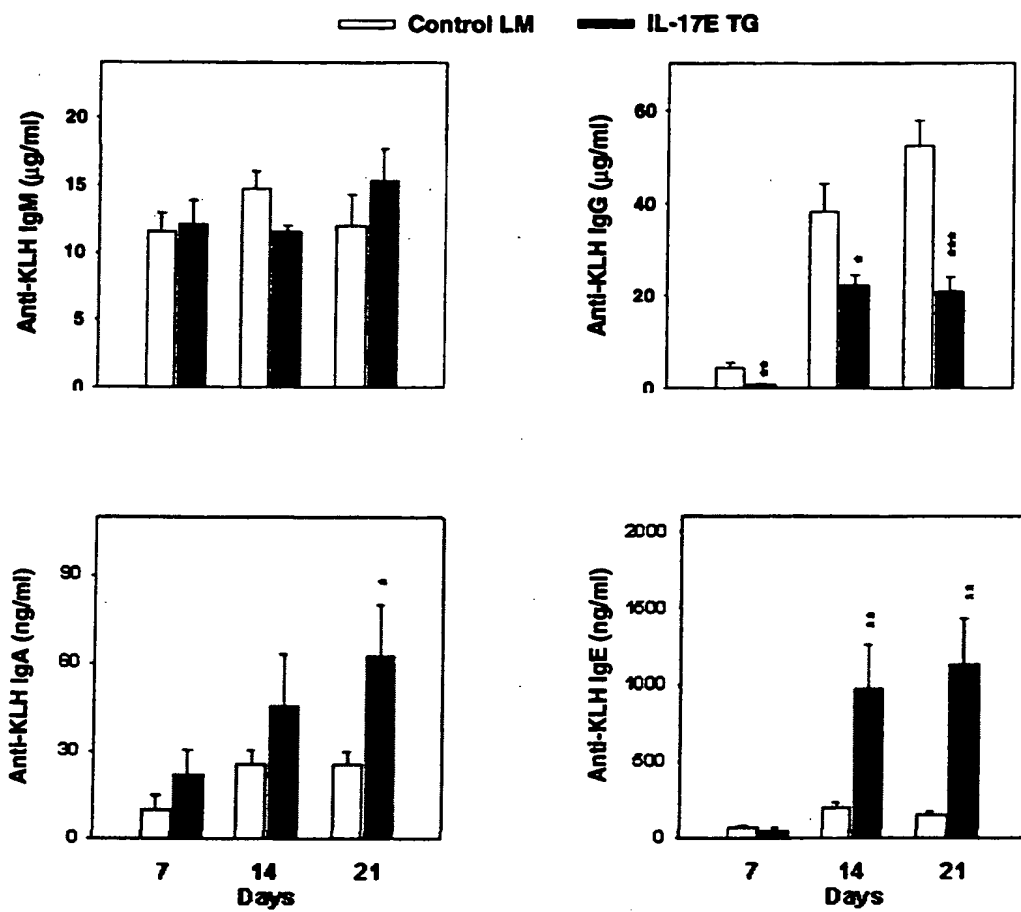


Figure 23

